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March 29, 2010

Sent via email to dthompson@cmap.illinois.gov

Ms. Dawn Thompson
CMAP
233 S Wacker Dr, Suite 800
Chicago, IL 60606

Re: CMAP Water Quality #10-WQ-005, Valley Marina Water Reclamation Facility, Illinois American Water Company, Kendall County

Dear Ms. Thompson:

Openlands, Prairie Rivers Network and the Illinois Chapter of Sierra Club have reviewed Illinois American Water Company's proposal to expand their Valley Marina Water Reclamation Facility's discharge to the Fox River in Kendall County from 0.25 to 0.42 MGD. The facility discharges to a segment of the Fox River which is listed as impaired due to alterations in side-stream or littoral vegetative cover, crop production, dam or impoundment, impacts from hydrostructure, flow regulation/modification, combined sewer overflows, municipal point sources, urban runoff/storm sewers, atmospheric deposition, aquatic algae, other flow regime alterations, dissolved oxygen, pH, phosphorus (total), sedimentation/ siltation, suspended solids, polychlorinated biphenyls, and fecal coliform (NPDES Permit No. IL0031551, Notice No. BDF:09061101.daa, currently on public notice at http://www.epa.state.il.us/public-notices). The state-endangered greater redhorse and state threatened river redhorse are found in the Fox River here (see attached EcoCat report).

ILAWC Should be Required to Comply with Permit Limits of 1.5 mg/L Phosphorus & 8 mg/L Total Nitrogen

We appreciate Illinois American Water Company's (ILAWC) efforts to limit its contribution of pollutants to the Fox River and note the company's plans to operate the expanded plant to achieve biological nutrient removal (BNR), to hold nutrient (N and P) loadings to current levels and to hold some of its loadings to current levels on an annual basis (BOD and TSS). At the same time, however, we note that the Fox River is impaired by, among other pollutants, total suspended solids (TSS), phosphorus, and low dissolved oxygen. The Fox River is also the focus of a multi-year and multi-million dollar, concerted effort by various stakeholders to repair and enhance the river's water quality As such, any expansion of point source discharges must be scrutinized with great care.

The operation of this plant for biological nutrient removal is a necessary step towards resolving the phosphorus and dissolved oxygen impairments in the river as well as the algal blooms listed as a cause of impairment in this section of Fox. While non-point sources no doubt contribute to the impairments in the Fox River, point sources remain an important contribution to nutrient-related impairments. See *U.S. EPA, An Urgent Call to Action: Report of the State-EPA Nutrient Innovations Task Group at 14*, http://www.epa.gov/waterscience/criteria/nutrient/nitgreport.pdf.

Mere operation of the plant to remove nitrogen and phosphorus is insufficient without some measurable standard. According to ILAWC, the BNR facilities are expected to result in total nitrogen effluent concentrations of 8 mg/L or less, and total phosphorus effluent concentrations of 2 mg/L or less. *Report for ILAWC Valley Marina WRF Improvements, section 4, p. 4-2 (January 2010).* From conversations with ILAWC consultants, we understand that a P effluent concentration of 1.5 mg/L could be consistently achievable at the plant without the need to supplement the BNR with chemical phosphorus removal. ILAWC should be required to comply with a permit limit of 1.5 mg/L for phosphorus and a permit limit of 8 mg/l for total nitrogen. While we understand that CMAP has no authority to impose permit limits on the applicant, approval of the expansion could be contingent upon an agreement to abide by these limits. Contrary to ILAWC's assertions, as shown below, federal regulations justify imposition of such limits.

Federal regulations prohibit an expanded discharge when such discharge will cause or contribute to the violation of water quality standards. *40 CFR 122.4(i).* As noted above, the Fox River is already impaired by phosphorus, low dissolved oxygen and aquatic algae. As such, the river is thereby impaired for the state's narrative standard, which prohibits such algal blooms. 35 IAC 302.203. Additional loadings of both phosphorus and nitrogen contribute to the dissolved oxygen and algal impairments. As such, 40 CFR 122.4(i) provides ample justification for limiting phosphorus and nitrogen discharges through the imposition of phosphorus and nitrogen limits in the NPDES permit. ILAWC has already stated that it can meet such limits under the proposed plan. Agreement to comply with permit limits will impose no additional costs.

Antidegradation Regulations Apply to ILAWC's Proposed Discharge & Require Consideration of Alternative Treatment Options

Illinois' antidegradation regulations were designed to ensure the protection of existing uses of Illinois waters, protect water quality and prevent unnecessary deterioration of waters of the state. *35 IAC 302.105.* Under these regulations, the Illinois Environmental Protection Agency is charged with implementing the policy and in doing so, must assess *any proposed increase in pollutant loading* that necessitates a renewed or modified NPDES permit. *35 IAC 302.105 (c)(2)* (emphasis added). ILAWC is proposing to increase the design average flow of the Valley Marina plant from 0.25 MGD to 0.42 MGD and must obtain a modified NPDES permit to do so. Although the applicant has stated that it will hold *annual* loadings of CBOD and TSS to the Fox River, daily, weekly and monthly loadings will clearly increase over current permitted levels at various times throughout the year. More importantly, as currently proposed, the facility's new NPDES permit will allow increases in loadings of ammonia, from 18 lbs/day to 30 lbs/day in spring and fall, from 13 lbs/day to 21 lbs/day in the summer and from 31 lbs/day to 52 lbs/day in winter. As a result, the state's antidegradation rules apply, even if ILAWC holds the *concentration* of ammonia discharged from the plant to current levels. There is no provision in the antidegradation regulations that allows an exemption for increased loadings of pollutants simply because the concentration is held to pre-expansion levels.

Where an increase in pollutant loading is proposed, the IEPA must require the applicant to assess alternatives to the proposed increase that result in no load increase or a reduced increase. According to the regulations, the alternatives assessed should consider no discharge alternatives as well as discharge to alternate locations, including publicly-owned treatment works. *35 IAC 302.105 (f)(1)(D).* The Illinois Pollution Control Board (IPCB) further clarified the requirements of the antidegradation alternatives assessment in a 2007 decision.

> USEPA guidance sets forth that the alternatives analysis must address pollution prevention measures, reduction of scale of the project, water recycling or reuse, process change, innovative treatment technology, advanced treatment technology, seasonal discharge options, improved operation and maintenance, and alternative discharge locations. While all alternatives may not be applicable to a specific project, the Board believes that those alternatives that are technically feasible must be considered for evaluation. *Des Plaines River Watershed Alliance v. Illinois EPA and Village of New Lenox*, PCB no. 04-88 (April 19, 2007) at *99.

Technically feasible alternatives must in turn be examined for economic feasibility. Again, the *New Lenox* opinion provides controlling authority:

> The [EPA] interim guidance describes the various steps involved in performing an economic impact analysis as a part of the antidegradation review. These steps include: the calculation of annual pollution control project costs and the development of total annualized costs on per household basis; financial analysis to determine if lower water quality is "necessary"; and determination of whether economic and social development would be important. *Des Plaines River Watershed Alliance v. Illinois EPA and Village of New Lenox*, PCB no. 04-88 (April 19, 2007) at *94,*95.

While ILAWC has considered various technological alternatives for treating the liquid and biosolids waste in Section 5 of its application to CMAP, the application contains no assessment of non-discharging alternatives. In addition, we understand that ILAWC failed to fully explore the economic and technical feasibility of regionalization, namely sending its discharge to the Fox Metro Water Reclamation District. It is our understanding that Fox Metro remains willing to negotiate potential service to Valley Marina. As noted in March 10, 2010 letter to CMAP from W. E. Deuchler Associates, treatment of Marina Village wastewater at Fox Metro would achieve lower daily loads of BOD, TSS and ammonia than proposed for the Valley Marina facility. This alternative must be fully explored for technical and economic feasibility before being rejected. Such assessment should be completed before any expansion is approved or the alternative will never be fairly assessed.

ILAWC and Marina Village Should Work with Kendall County to Reduce Nonpoint Source Pollution to the Fox River

The applicant should work with the Marina Village subdivision it serves and Kendall County to update stormwater management ordinances to comply with the fourth prerequisite criterion so that non-point source protections are at least comparable with those in CMAP model ordinances. To prevent the water quality in the Fox River from degrading, the following deficiencies should be corrected:

1) The floodplain management ordinance should require effective soil erosion and sediment control measures for all disturbances in the floodway, as well as a minimum 25 foot native vegetation buffer along the river.

2) Illinois American Water Company did not specify whether the Kendall County ordinance would provide adequate stream and wetland protection for eight out of twelve ordinance sections in the application. Ordinances should be updated at a minimum to:

- Protect the beneficial functions of the Fox River and surrounding wetlands from damaging modifications, including filling, draining, excavating, damming, impoundment, and vegetation removal;
- Prohibit modification of high quality, irreplaceable wetlands, lakes and stream corridors;
- Prohibit watercourse relocation or modification except to remedy existing erosion problems, restore natural conditions, or to accommodate necessary utility crossings; and require mitigation of unavoidable adverse water quality and aquatic habitat impacts;
- Discourage armoring of channels and banks unless natural vegetation and gradual bank sloping are inadequate to prevent severe erosion;
- Discourage culvert crossings of streams unless necessary for allowing access to property;
- Discourage onstream impoundments unless public interests and environmental mitigation criteria are met;
- Require adequate mitigation measures for approved wetland and waterbody modifications, including 1.5 to 1 acreage replacement for destroyed wetlands, maintenance and monitoring for at least 5 years, and full restoration of natural wetland or waterbody functions.

Thank you for the opportunity to comment on this FPA amendment application.

Sincerely,

Cynthia L Skrukrud, Ph.D.
Clean Water Advocate

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Attachment: EcoCat report

EcoCAT
Ecological Compliance Assessment Tool

Applicant:	Cindy Skrukrud	*IDNR Project #:*	1007981
Contact:	Cindy Skrukrud	Alternate #:	CMAP10WQ005
Address:	4209 W Solon Rd Richmond, IL 60071	Date:	03/31/2010

Project: IAWC Valley Marina Water Reclamation Facility
Address: Rt 31, Oswego

Description: proposal to expand discharge to the Fox River in Kendall County from 0.25 to 0.42 MGD.

Natural Resource Review Results

This project was submitted for information only. It is not a consultation under Part 1075.

The Illinois Natural Heritage Database shows the following protected resources may be in the vicinity of the project location:

Fox River INAI Site
Greater Redhorse *(Moxostoma valenciennesi)*
River Redhorse *(Moxostoma carinatum)*

Location

The applicant is responsible for the accuracy of the location submitted for the project.

County: Kendall
Township, Range, Section:
37N, 8E, 8 37N, 8E, 17

IL Department of Natural Resources Contact
Impact Assessment Section
217-785-5500
Division of Ecosystems & Environment

IDNR Project Number: 1007981

Disclaimer

The Illinois Natural Heritage Database cannot provide a conclusive statement on the presence, absence, or condition of natural resources in Illinois. This review reflects the information existing in the Database at the time of this inquiry, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, compliance with applicable statutes and regulations is required.

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